L 17529-63

ACCESSION NR: AP3004535

spectra of the oil irradiated by the betatron. However, after irradiation with the ultraviolet light, the intensity of these bands increased. When the irradiation is performed in an open vessel with a transformer oil using a dose of 10^6r, the oxidizing number of the oil increases and the electric insulating properties are decreased. As a result of the irradiation, Beta-active isotopes Fe^{53} and Na^{24} appear in the oil. Orig. art. has: 3 tables and 5 figures.

ASSOCIATION: none

SUBMITTED: 00 DATE ACQ: 27Aug63 ENCL: 00

SUB CODE: PH, CH NO REF SOV: 012 OTHER: 003

Card 2/2

ACC NR: AP6018620 (A) SOURCE CODE: UR/0065/66/000/006/0021/0023

AUTHOR: Bazin, A. P.; Kaplan, S. Z.; Spirina, I. F.

ORG: none

TITLE: The effect of small doses of Gamma-rays and neutrons on the aging of oils

SOURCE: Khimiya i tekhnologiya topliv i masel, no. 6, 1966, 21-23

TOPIC TAGS: transformer oil, bremsstrahlung, gamma irradiation, neutron irradiation, petroleum, solution acidity, lubricant viscosity, lubricating oil, dielectric property, nonmetal aging

ABSTRACT: The authors study the initiating action of gamma-rays and neutrons on the aging of petroleum oils in contact with structural materials. The results of experiments on the study of the influence of the bremsstrahlung from a 25-Mev betatron on the dielectric properties of transformer oil (GOST 982-56) in contact with active oxidation catalysts (copper and copper oxide), and the influence of fast neutrons (Po-Be) on the viscosity and oxidation number of No. 22 turbine oil with and without a 5% addition of polyisobutylene during storage in steel containers. The initiating dose amounted to 500 r. It was found that transformer oil subjected to a short-term irradiation (475 rad) ages faster than non-irradiated oil during prolonged contact with copper or copper oxide in air. On irradiation with fast neutrons (10^9 neutr/cm^2) and subsequent prolonged storage of No. 22 turbine oil with and without 5% polyiso-

Card 1/2 UDC: 537.531:665.521.5

L 41071-66

ACC NR: AP6018620

butydene, the viscosity and the oxidation number remain practically unchanged. The turbine oil irradiated with neutrons (Po-Be) showed induced activity (beta-active isotopes P^{32} and S^{35}). Orig. art. has: 2 tables.

SUB CODE: 07,11/ SUBM DATE: none/ ORIG REF: 005

Card 2/2

L 44132-65 EPF(c)/EPR/EWT(m)/EWP(j)/T Pc-4/Pr-4/Pa-4 RPL WW/RM
ACCESSION NR: AP5011256 UR/0190/65/007/004/0734/0736

AUTHOR: Bogdanov, M. N.; Khar'kov, S. N.; Spirina, I. A.; Leshchiner, A. U.; Plyashkevich, L. A.

TITLE: Synthesis and properties of polyaryl esters containing carboxyl groups

SOURCE: Vysokomolekulyarnyye soyedineniya, v. 7, no. 4, 1965, 734-746

TOPIC TAGS: polyaryl ester, carboxyl group, heat resistant polymer

ABSTRACT: New polyaryl esters containing free carboxyl groups have been prepared and some of their properties have been studied. The introduction of carboxyl groups was of interest as a means of imparting to the polymers solubility in alkalies and ion exchange properties, and of increasing heat resistance via the formation of salt-like cross-links. Polymeric and copolymeric polyaryl esters were prepared by interfacial polycondensation of trimesinyl dichloride (I) and/or terephthaloyl chloride (II) and 4,4'-dihydroxy-2"-carboxytriphenylmethane (III) and/or 2,2-bis(4-hydroxyphenyl)propane (IV) in sodium hydroxide solution at room temperature. The properties of the polyaryl esters

Card 1/2

L 44132-65

ACCESSION NR: AP5011256

were highly dependent on the monomer structures. All polyaryl esters from I were poorly soluble in dilute alkalies, but soluble in stronger alkalies with hydrolysis. Polymers from I and IV were also poorly soluble in cresol and tetrachloroethane; with the addition of II, solubility in cresol appeared. Polymers from II and III were soluble in dilute alkalies in the cold and in cresol. The polyaryl esters melted with decomposition in the range 240—320C. Orig. art. has: 2 formulas and 1 table. [SM]

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut iskusstvennogo volokna (All-Union Scientific Research Institute of Synthetic Fibers)

SUBMITTED: 02Jul64 ENCL: 00 SUB CODE: OC, GC

NO REF SOV: 002 OTHER: 003 ATD PRESS: 3246

Card 2/2

YEREMENKO, V.D.; MIROCHNIK, F.M.; SPIRINA, K.F.

Sanitary control of vegetables and fruits treated with methyl bromide gas. Gig. i san. 27 no.3:59-63 Mr '62. (MIRA 15:4)

1. Iz Moskovskoy gorodskoy sanitarno-epidemiologicheskoy stantsii i Instituta narodnogo khozyaystva imeni G.V.Plekhanova.
(FRUIT) (VEGETABLES) (METHANE)

SPIRINA, L.P.

3(7) PHASE I BOOK EXPLOITATION SOV/3121

Leningrad. Glavnaya geofizicheskaya observatoriya

Voprosy sinopticheskoy klimatologii i geliogeofiziki (Problems of Synoptic Climatology and Heliogeophysics) Leningrad, Gidrometeoizdat, 1959. 81 p. (Series: Its: Trudy, vyp. 89) Errata slip inserted. 1,200 copies printed.

Sponsoring Agency: USSR. Glavnoye upravleniye gidrometeorologicheskoy sluzhby.

Ed. (Title page): L.A. Vitel's, Candidate of Geographical Sciences; Ed. (Inside book): Yu.V. Vlasov; Tech. Ed.: N.V. Volkov.

PURPOSE: These articles are intended for geophysicists and meteorologists in the field of long-range weather forecasting.

COVERAGE: This is a collection of 8 articles in the field of synoptic climatology with emphasis on the methodology of long-range forecasting and problems in heliophysics in relation to weather. An analysis is given of studies conducted in the transfer of moisture over European USSR and the use of the results obtained in quantitative precipitation forecasting. Problems in the formation of thermal anomalies in the USSR, taking into account the inertia of the thermal regime, macrocirculation, and heliogeophysical relations, are discussed. Forecasting the level of the Caspian Sea for the coming ten-year period on the basis of expected solar activity is attempted. Problems in the verification of long-range weather forecasts are also discussed. References accompany individual articles.

TABLE OF CONTENTS:

AVAILABLE: Library of Congress

TM/lb
2/12-60

Card 3/3

3

SPIRINA L. P.

50-2-22/22

AUTHOR: Gayevskaya, G. N.

TITLE: Conference of Young Experts of the Main Geophysical Observatory imeni A. I. Voyeykov (Konferentsiya molodykh spetsialistov Glavnoy geofizicheskoy observatorii im. A. I. Voyeykova)

PERIODICAL: Meteorologiya i Gidrologiya, 1958, Nr 2, pp. 61-61 (USSR)

ABSTRACT: This conference took place from October 28th - 29th, 1957; assistants of the Leningrad University, of the Arctic Scientific Research Institute, of the All-Soviet Institute for Plant Breeding and others took part in it. Lectures were held by young scientists of the conference. A. S. Grigor'yeva's lecture on "the Horizontal Synchronizing Pulse in the Atmosphere" dealt with the computation of the atmospheric coefficient on various isobar surfaces with reference to the air current.
L. P. Spirina's lecture dealt with the forecasts of the monthly temperature anomalies with reference to the inertia laws. N. A. Timofeyev reported on the calculations of show melting. On the strength of the known laws by Prandtl and of the stage law by D. L. Laykhtman, a formula for the

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computation of the heat-exchange between snow surface and atmosphere with reference to thermal layer formations was obtained and the computation nomographs were represented.

The lecture of Petrenchuk, O. P. "The Frontal Structure of Anticyclones" dealt in detail with the structure of mobile and steady anticyclones as well as with the structure of the troposphere above these. O. I. Golikova reported on the measurement of spectral coefficients of brightness on laboratory conditions.
Mrs. O. I. Golikova ("The Earth Radiation Meter with Wind Shield Filter") and B. I. Gulyayev ("Methods of Observation of the Plant-Physiological Radiation") reported on the development of new actinometric apparatus and the perfection of the existing devices. A method for the detection of the radiation balance according to certain measured values of the summary radiation was suggested by L. N. D'yachenko in his lecture "On the Connection between the Radiation balance and the Total Radiation".
R. L. Kagan reported on a better approximated solution of the equation of the light dispersion according to the method of

Conference of Young Experts of the Main Geophysical Observatory imeni A. I. Voyeykov

50-2-22/22

Schwarzschild ((Shvartsshil'd))

The lecture held by A. A. Kobyakova, on the application of electronic machines for the preliminary computations of the pressure field was very interesting. The audience was enabled to become acquainted with the works of the young exports of the geophysical main observatory which were written in the time from 1956 to 1957, as well as with a recording device which records the transparency of the atmospheric and was developed and constructed by V. I. Goryshin.

AVAILABLE: Library of Congress

Card 3/3

SPIRINA, L.P.

3(8) PHASE I BOOK EXPLOITATION SOV/2270

Glavnaya geofizicheskaya observatoriya

Voprosy sinopticheskoy klimatologii (Problems in Synoptic Climatology) Leningrad, Gidrometeoizdat, 1959. 105 p. (Series: Its: Trudy, vyp. 87) 1,100 copies printed.

Sponsoring Agency: Glavnoye upravleniye gidrometerologicheskoy sluzhby pri Sovete Ministrov SSSR.

Ed. (Title page): T.V. Pokrovskaya, Candidate of Geographical Sciences; Ed. (Inside book): T.V. Ushakova; Tech. Ed.: A. N. Sergeyev.

PURPOSE: This issue of the Observatory's Transactions is intended for meteorologists and climatologists.

COVERAGE: The authors are primarily concerned with the possibility of using various monthly characteristics of atmospheric circulation in forecasting monthly air temperature anomalies.

Card 1/3

SPIRINA, L.P.

Continentality variations of the climate of western Eurasia over a period of many years. Trudy GGO no.111:99-107 '61. (MIRA 15:1)
(Climatology)

SPIRINA, L.P.

Change in temperature conditions in Western Siberia and in the European part of the U.S.S.R. in recent deccennaries. Trudy GGO no.133:26-34 '62. (MIRA 16:2)

(Temperature)

L 13775-65 EWT(1)/FCC Pa-4 AFETR/AEDC(a) GW
ACCESSION NR: AT4047617 S/2531/64/000/164/0003/0020

AUTHOR: Pokrovskaya, T. V.; Spirina, L. P.; Sudist, A. P.

TITLE: On the problem of the influence of the underlying surface on the formation of temperature anomalies in the European SSSR in spring

SOURCE: Leningrad. Glavnaya geofizicheskaya observatoriya. Trudy*, no. 164, 1964. Obshchaya i sinopticheskaya klimatologiya (General and synoptic climatology), 3-20

TOPIC TAGS: meteorology, climatology, atmospheric temperature, atmospheric circulation, atmospheric pressure, weather forecasting, long-range weather forecasting

ABSTRACT: This paper gives a comparative evaluation of the influence of the following factors on the value of the mean monthly air temperature in April over the European SSSR: 1) depth of the snow cover toward the end of winter; 2) ice conditions and water temperature anomalies in the Barents Sea in March; 3) temperature anomalies of surface water in the North Atlantic in March; and 4) conditions of atmospheric circulation in October-March. Depth of snow cover was studied at 50 stations; six characteristics were considered. Observational data for the

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L 13775-65
ACCESSION NR: AT4047617

years 1937-1951 were used. The relationship between snow cover parameters and April temperature was expressed poorly (at only 40% of the stations). The relationship between snow cover for the entire European SSSR and April temperature is better than a similar relationship considered for individual stations. The influence of the Barents Sea was considered on the basis of data for 1921-1960. It was found that the higher the temperature of the Barents Sea, the warmer are the Aprils in the European SSSR, and the quantitative indices of the influence of the Barents Sea on April temperatures are quite high. The influences of water temperature in the North Atlantic on April temperatures was determined by analysis of 15 extremely warm and 15 extremely cold years in the North Atlantic; these data were correlated with temperature anomaly data for 17 stations in the European SSSR. It was found that when the Atlantic waters are characterized by a positive anomaly in March there are temperature anomalies of both signs in April which are close to the norm. When there are negative anomalies in March in the waters of the Atlantic there are considerable positive anomalies (1.5-2.0°) in the entire European SSSR. Finally, the influence of the underlying surface was compared with the influence of atmospheric circulation. Years of maximum and minimum development of certain types of circulation were considered. Comparison of maps showing the influence of the four above-mentioned factors revealed that the influence of atmospheric circulation is greatest, although the influence of the Barents Sea is close behind, especially in the extreme north. The influence of

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L 13775-65
ACCESSION NR: AT4047617

the snow cover and the Atlantic are about equal, but much less important than the first two factors. It is suggested that these relationships be exploited in long-range forecasting of April temperature anomalies. Orig. art. has: 9 figures and 4 tables.

ASSOCIATION: Glavnaya geofizicheskaya observatoriya, Leningrad (Main Geophysical Observatory)

SUBMITTED: 00 ENCL: 00 SUB CODE: ES

NO REF SOV: 015 OTHER: 001

Card 3/3

POKROVSKAYA, T.V.; [illegible]

Evaluation of the effect of snow cover on the air temperature in spring in the European part of the U.S.S.R. Trudy ZAO no.121:110-113 '65. (MIRA 18:10)

LANDYSHEVA, V.A.; RADCHENKO, G.O.; SPIRINA, L.S.; CHERNOV, Ye.N.

Development of the process of surface acetylation of textile fibers. Zhur.prikl. khim. 37 no. 5:1087-1092 My '64. (MIRA 17:7)

1. Vladimirskiy nauchno-issledovatel'skiy institut sinteticheskikh smol.

SPIRINA, M.N.

Determination of reflection and penetration coefficients of some grid systems using mean values of boundary conditions. Izv.vys.ucheb.zav.; radiotekh. 8 no.4:448-451 Jl-Ag '65. (MIRA 18:11)

1. Submitted November 9, 1964.

ACCESSION NR: AP4043685 S/0109/64/009/008/1509/1513

AUTHOR: Kontorovich, M. I.; Astrakhan, M. I.; Spirina, M. N.

TITLE: Delaying electromagnetic waves by wire screens

SOURCE: Radiotekhnika i elektronika, v. 9, no. 8, 1964, 1509-1513

TOPIC TAGS: conducting screen, wire screen, wire screen antenna

ABSTRACT: A theoretical investigation of delaying electromagnetic waves by two plane-parallel wire screens with rectangular meshes is reported. The theory may be applicable to a Barry-Miller antenna (Aviat. Week, 1963, 79, 10, 80-82, 85). In the case of a soldered screen with a square mesh, the TE-wave is not delayed, while the TM-wave propagating along the z-axis without attenuation has a phase velocity $v_\phi = \frac{c}{\gamma/k}$, where $\gamma/k > 1$ and can be determined from this equation:

$$kh = \frac{4}{2\sqrt{(\gamma^2/k^2)-1}} \ln\left[1 - \frac{2a}{\lambda} \ln \frac{a}{2\pi r_0} \frac{1-0{,}5(\gamma^2/k^2)}{\sqrt{(\gamma^2/k^2)-1}}\right],$$

Card 1/2

[illegible], L.K.; SEMENS, M.[illegible].

Comparative data of the biological and colorimetric methods in the control of the activity of preparations containing cardiac glycosides. Apt. delo 12 no.6:70-72 N-D '63. (MIRA 17:12)

1. Omskaya oblastnaya kontrol'no-analiticheskaya laboratoriya aptekoupravleniya.

SPIRINA, N.I., inzh.

Measuring river current velocities. Izv. Inst. gidrol. i gidr. AN URSR 8:20-28 '51. (MIRA 11:4)
(Stream measurements) (Flowmeters)

PYSHKIN, B.A., red.; ARISTOVSKIY, V.V.[Aristovs'kyi, V.V.], doktor tekhn. nauk, red.; DYATLOVITSKIY, L.I. [Diatlovyts'kyi, L.I.], kand. tekhn. nauk, red.; SPIRIN, G.M. [Spirin, H.M.], red.; SPIRINA, N.I., red.; PECHKOVSKAYA, O.M.[Pechkovs'ka, O.M.], red. izd-va; RAKHLINA, N.P., tekhn. red.

[Investigating the stressed state of hydraulic structures] Doslidzhennia napruzhennoho stanu hidrotekhnichnykh sporud; sbirnyk naukovykh prats'. Kyiv, 1961. 149 p. (MIRA 14:10)

1. Akademiya nauk URSR, Kiev. Rada po vyvchenniu produktyvnykh syl URSR. 2. Chlen-korrespondent AN URSR (for Pyshkin).
(Hydraulic structures)

SPIRINA, P.V., aspirant

Arterial pressure in young people. Sov.med. 25 no.1:55-58 Ja '62. (MIRA 15:4)

1. Iz gospital'noy terapevticheskoy kliniki (zav. - prof. A.I. Germanov) Kuybyshevskogo meditsinskogo instituta (dir. - kand.med. nauk D.A.Voronov).

(BLOOD PRESSURE)

GUSEVA, N.I., dotsent; SPIRINA, P.V., aspirant

Norms of arterial pressure and occurence of hypertension among some contingents of the population of the city of Kuybyshev. Kaz. med. zhur. no.1:14-16 Ja-F '63. (MIRA 16:8)

1. Gospital'naya terapevticheskaya klinika (zav. - prof. A.I. Germanov) Kuybyshevskogo meditsinskogo instituta.
(KUYBYSHEV--HYPERTENSION)

SPIRINA, P.V., aspirant

Electrocardiograms in hypertension in adolescents and youths.
Kaz. med. zhur. 4:17-18 Jl-Ag'63 (MIRA 17:2)

1. Gospital'naya terapevticheskaya klinika (zav. - prof. A.I. Germanov) Kuybyshevskogo meditsinskogo instituta.

L 32961-66 EWT(m)/EWP(e)/EWP(t)/ETI IJP(c) JD/JG/WH
ACC NR: AP6016926 (N) SOURCE CODE: UR/0072/66/000/005/0013/0015

AUTHOR: Dubrovo, S. K. (Candidate of chemical sciences); Shnypikov, A. D. (Engineer); Shnypikova, L. G. (Engineer); Spirina, S. D. (Engineer)

ORG: Institute of Chemistry of Silicates Imeni I. V. Grebenshchikov (Institut khimii silikatov)

TITLE: DG-3 glass for use in chemical laboratories where resistance to alkaline solutions is required

SOURCE: Steklo i keramika, no. 5, 1966, 13-15

TOPIC TAGS: laboratory glassware, glass manufacturing machinery, molybdenum glass, alkali, crystallization

ABSTRACT: The authors discuss the production and properties of DG-3 glass. This glass is based on the Na_2O-R_2O-ZrO_2-SiO_2 system. Admixtures of lanthanum and lithium oxides are used to improve founding properties. The new glasses have coefficients of linear expansion α_{20-400} which vary from 57 to $87 \cdot 10^{-7}$ per degree. DG-3 glass is being used for producing chemical laboratory glassware and tubes. The apparatus for founding DG-3 glass is described. The density of this glass is 2.711 and the thermal stability is 148°. The temperature at which it begins to soften is about 700-710°. Crystallization did not occur when the glass was heated from 500 to 1200° over a three-hour

UDC: 666.117.4

Card 1/2

32961-66

ACC NR: AP6016926

period. Tables are given showing the relative resistance of chemical laboratory glass to alkaline solutions. DG-3 glass surpasses all commercial chemical laboratory glass in resistance to alkaline solutions, and particularly to mixtures of sodium hydroxide and soda. DG-3 glass satisfies all GOST requirements for water resistance and acid resistance. This standard covers glass category XV-1, first class chemical stability. DG-3 forms good joints with No. 29, 23 and molybdenum glass.[15] Orig. art. has: 4 figures, 2 tables.

SUB CODE: 07, 11 SUBM DATE: 00/ ORIG REF: 004/ OTH REF: 001

Card 2/2

ZUBOV, M.F.; FEDOSEYENKO, L.G.; SANIN, M.A.; PIVOVAROVA, T.M.; ZIL'BERMINTS, I.V., kand. biolog. nauk; FADEYEV, Yu.N., kand. sel'skokhoz. nauk; ZHURAVLEVA, L.M.; KIPIANI, A.A., aspirant; MEL'NIKOV, N.N.; BOCHAROVA, L.P.; SHVETSOVA-SHILOVSKAYA, K.D.; SHAPOVALOV, G.K.; SPIRINA, T.A.; SEDYKH, A.S.; ZINCHENKO, V.A., aspirantka

From experiments in the use of new preparations. Zashch. rast. ot vred. i bol. 8 no.10:24-26 O '63. (MIRA 17:6)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut khimicheskikh sredstv zashchity rasteniy (for Zubov, Fedoseyenko, Sanin, Pivovarova). 2. Gruzinskiy institut zashchity rasteniy (for Kipiani). 3. Moskovskaya ordena Lenina sel'skokhozyaystvennaya akademiya im Timiryazeva (for Zinchenko).

SHIKHA, V. V.

SHIKHA, V.V.: "The use of stream curves in regulating sand through well shafts." Min Agriculture USSR. All-Union Sci Res Inst of Hydraulic Engineering and Soil Improvement. Kiev, 1956
(Dissertation For the Degree of Candidate in Technical Sciences)

Sc. Knizhnaya Letopis', No. 15, 1956

SPIRINA, V.M.

99-58-5-2/10

AUTHORS: Yerokhin, N.A., Candidate of Technical Sciences; Spirina, V.M.

TITLE: Ways of Reducing the Expense of the Rural Water Supply in the Ukrainian SSR (Puti snizheniya zatrat na sel'skoye vodosnabzheniye v Ukrainskoy SSR)

PERIODICAL: Gidrotekhnika i Melioratsiya, 1958, Nr 5, pp 8-18 (USSR)

ABSTRACT: The construction of centralized or local water supply lines, together with the building of pumping, transportation and distributing installations is at present the most important task in the Ukraine. This republic is one of the leaders in the union in the number of artesian wells constructed yearly. Between 1955 - 1957, 6,919 new wells were drilled there. To reduce the costs of the construction of rural water lines, the central powers must develop and modernize conditions and standards. In the construction of new artesian wells, a combined system of drilling - rotor and percussive - should be used. The use of specially constructed filters, is also advised, as is the use of asbestos cement pipes. Unfortunately, deliveries of these pipes are still inadequate and force builders to use the more expensive cast iron ones. The

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Ways of Reducing the Expense of the Rural Water Supply in the Ukrainian SSR

authors recommend the use of a universal hydrant without cups constructed by the Engineer Rogozhkin, which will not freeze-up. The use of bacterycidal rays for the sterilization of water is recommended; it works automatically and no reagents need to be added to the water.
There are 6 drawings.

AVAILABLE: Library of Congress

Card 2/2 1. Water supplies-USSR 2. Water supplies-Costs 3. Agriculture-USSR
4. Irrigation systems-Costs

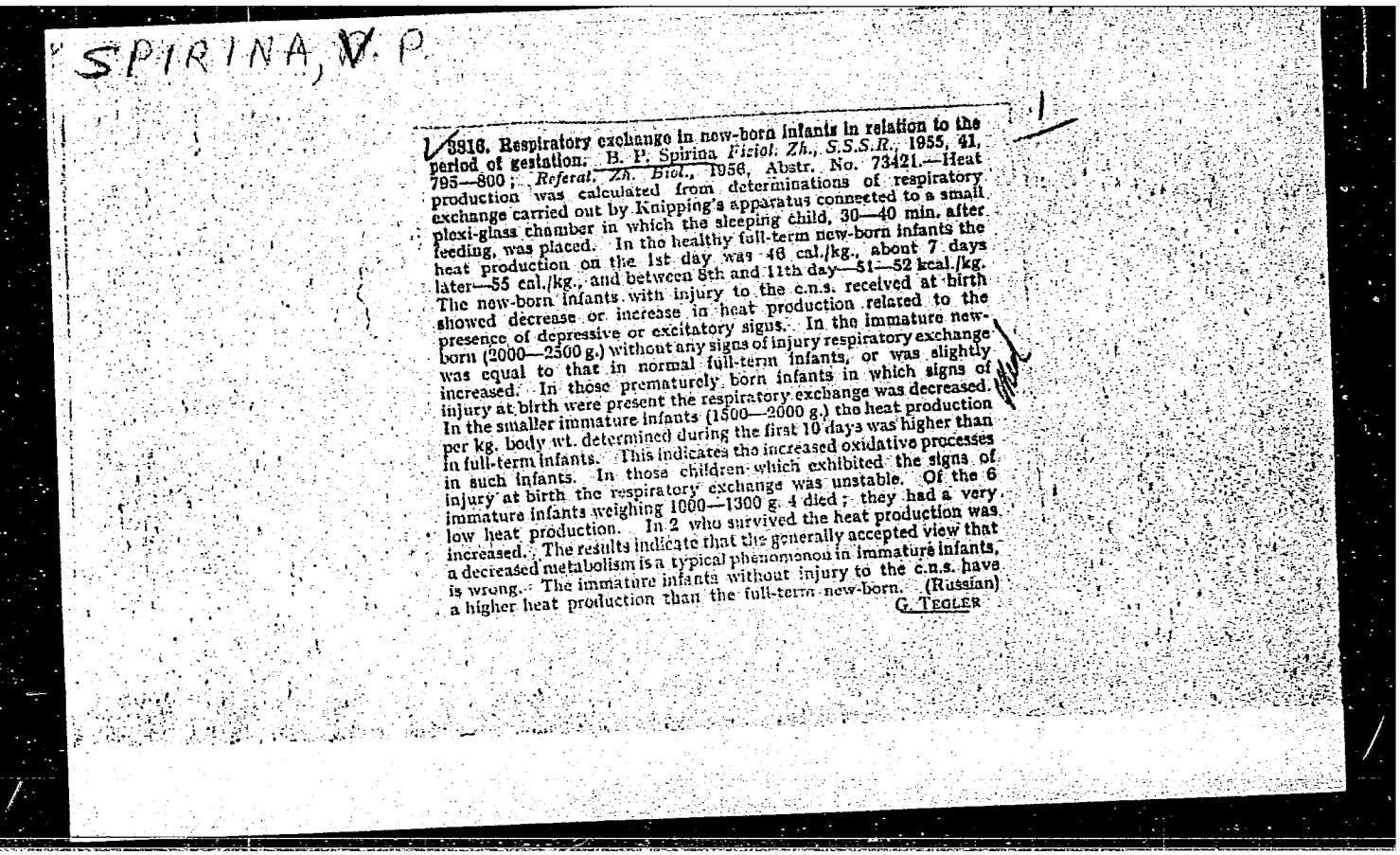
SPIRINA, V.M., kand.tekhn.nauk

Porous concrete drainage in slow filters. Gidr.i mel. 13 no.7:44-50 Jl '61. (MIRA 14:7)
(Water—Purification) (Filters and filtration)

[redacted], V. I.

"Use Established in Newborn Children," Gand Ped Sci, Central Inst for the Advanced Training of Physicians, 21 Sep 54. (VT, 10 Sep 54)

SO: Sum 432, 29 Mar 55



SPIRINA, V. P.

3916. Respiratory exchange in new-born infants in relation to the period of gestation. B. P. Spirina *Fiziol. Zh., S.S.S.R.*, 1955, 41, 795—800; *Referat. Zh. Biol.*, 1956, Abstr. No. 73421.—Heat production was calculated from determinations of respiratory exchange carried out by Knipping's apparatus connected to a small plexi-glass chamber in which the sleeping child, 30—40 min. after feeding, was placed. In the healthy full-term new-born infants the heat production on the 1st day was 46 cal./kg., about 7 days later—55 cal./kg., and between 8th and 11th day—51—52 kcal./kg. The new-born infants with injury to the c.n.s. received at birth showed decrease or increase in heat production related to the presence of depressive or excitatory signs. In the immature new-born (2000—2500 g.) without any signs of injury respiratory exchange was equal to that in normal full-term infants, or was slightly increased. In those prematurely born infants in which signs of injury at birth were present the respiratory exchange was decreased. In the smaller immature infants (1500—2000 g.) the heat production per kg. body wt. determined during the first 10 days was higher than in full-term infants. This indicates the increased oxidative processes in such infants. In those children which exhibited the signs of injury at birth the respiratory exchange was unstable. Of the 6 immature infants weighing 1000—1300 g. 4 died; they had a very low heat production. In 2 who survived the heat production was increased. The results indicate that the generally accepted view that a decreased metabolism is a typical phenomenon in immature infants, is wrong. The immature infants without injury to the c.n.s. have a higher heat production than the full-term new-born. (Russian)

G. TEGLER

Country : USSR
Category : Human and Animal Physiology. T
The Physiology of Age.
Abs. Jour. : Ref Zhur-Biol., No 23, 1958, 106082

Author : Spirina, V. P.
Institut. :
Title : The Influence of the Positive Emotional State on Lung Ventilation, Gas Metabolism, and, and Thermal Output in 4-6 Year Old Children with* Normal Output

Orig Pub. : Vopr. okhrany materinstva i detstva, 1957, 2, No 6, 42-46

Abstract : An increase of lung ventilation (LV), CO_2 discharge, and thermal output was noted in all children (17) who were in a positive emotional state produced by a slide demonstration of children's fairy tales accompanied by a reading of the fairy tales. The consumption of O_2 increased only in children (10) with unbalanced processes of cortical activity. Children with balanced cortical processes (7) showed a somewhat decreased O_2 consumption. The state of the

Card: 1/3
*Different Typological Trends of Higher Nervous

SPIRINA, V.P., kand.med.nauk

Pulmonary ventilation, gas exchange and heat production in four- to-six-old children with various types of the higher nervous activity. Pediatriia no.9:24-28 S '57. (MIRA 10:12)

1. Iz otdela fiziologii (zav. - doktor meditsinskikh nauk N.Ye. Ozeretskovskaya) Nauchno-issledovatel'skogo instituta pediatrii RSFSR (dir. - kandidat meditsinskikh nauk V.N.Karachevtseva..
(NERVOUS SYSTEM) (RESPIRATION)

ANISOVA, A.A., ZHMEYDO, A.T., GORBUNOVA, V.I. SPIRINA, V.P.

Vitamin C indexes in preschool children. Pediatriia 36 no.6:56-59 Je '58 (MIRA 11:6)

1. Iz otdela fiziologii Instituta pediatrii Ministerstva zdravookhraneniya RSFSR (zav. - doktor med.nauk N.Ye. Ozeretskovkaya) i A.D.E. vitaminnogo otdela (zav. - prof. S.N. Matsko) Instituta vitaminologii Ministerstva zdravookhraneniya SSSR.

(VITAMIN C, metab.
utilization, eff. of decreased allottment in preschool child. (Rus))

(CHILD
eff. of decreased vitamin C allottment on preschool age child. (Rus))

SPIRINA, Valentina Petrovna, kand.med. nauk; POTAPOVA, I.N., red.; PRONINA, N.D., tekhn. red.

[What you should know about building up children's resistance] Chto nado znat' o zakalivanii detei. Moskva, Medgiz, 1962. 19 p. (MIRA 16:1)

(CHILDREN--CARE AND HYGIENE)

SPIRINA, V.P.; CHERNIKOVA, A.P.

Work of preparing scientific pediatric pediatric personnel.
Vop.okh.mat.i det. 7 no.9:67-71 S '62. (MIRA 15:12)

1. Iz Nauchno-issledovatel'skogo pediatricheskogo instituta Ministerstva zdravookhraneniya RSFSR, Moskva.
(PEDIATRICS—STUDY AND TEACHING)

SPIRINA, Valentina Petrovna, kand.med.nauk

"Infantile problems." Izobr.i rats. no.3:26-29 '63.
(MIRA 16:4)

1. Direktor Gosudarstvennogo nauchno-issledovatel'skogo pediatricheskogo instituta Moskvy.
(INFANTS--CARE AND HYGIENE)

SPIRINA, V.P., kand.med.nauk

Regime of a preschool child. Zdorov'e 9 no.3:25-26 Mr '63.
(MIRA 16:5)

(CHILDREN—CARE AND HYGIENE)

MESHCHERYAKOV, A.F.,inzh.; PROVODIN, S.S., inzh.; KALINOVSKAYA, Ye.Ya., inzh.; SHOLOKHOV, A.N., inzh.; DUMESH, S.Ye., inzh.; SPIRINA, Ye.I., inzh.; ZATONSKAYA, M.I., inzh.; ZARILOVA, T.A., tekhnik; LITINA, L.A., tekhnik; SHCHERDYUKOV, Ya.I., otv. red.

[Index to an illustrated map of Moscow] Ukazatel' k illiustrirovannoi skheme Moskva. Moskva, 1957. 47 p. (MIRA 15:2)

1. Moscow. Arkhitekturno-planirovochnoye upravleniye.
(Moscow--Directories)

SPIRINA, V.V.

14-1-304

Translation from: Referativnyy Zhurnal, Geografiya 1957, Nr 1, p. 24 (USSR)

AUTHORS: Kamysheva-Yelpat'yevskaya, V. G. and Spirina, V. V.

TITLE: Microfauna of the Upper Pliocene and Post Pliocene deposits in the Area between the Volga and the Ural Rivers, and its Stratigraphic Significance (Mikrofauna verkhnepliotsenovykh i postpliotsenovykh otlozheniy mezhdurech'ya Volga - Ural i yeye stratigraficheskoye znacheniye)

PERIODICAL: Uch. zap. Saratovsk. un-ta, 1955, Nr 45, pp. 63-71

ABSTRACT: The characteristic vertical distribution of Ostracoda in the upper Pliocene and in the quaternary deposits of the area between the Volga and the Ural rivers is described. Various remains of Ostracoda have been encountered at a depth of 7 to 35 m in the sand and clay formations of the Khvalyn' and Khazar strata. Such deposits are characteristic of the quaternary as well as of the upper Pliocene periods, which precludes the possibility of drawing a clear line of demarcation between these two formations. The presence of Caspiella dorsoarcuata (Zal.) indicates the Baku stage. Rich and

Card 1/3

Microfauna of the Upper Pliocene and Post Pliocene deposits in the Area between the Volga and the Ural Rivers, and its Stratigraphic Significance

varied deposits of Ostracoda characteristic of the Apsheron stage in regions lying further south have been found at a depth of 35 to 70 m. [Latin names of different Ostracoda species given in the abstract are omitted in the present translation]. An analysis of the vertical distribution of Ostracoda in the test well indicates Ostracoda fossils peculiar to the Khvalyn', Khazar, Baku and Apsheron layers in the Pliocene and post Pliocene deposits found in the area beyond the Volga.

It is pointed out that in the region beyond the Volga certain characteristic Ostracoda were found in some of the upper strata at a higher level than in Microfauna of the Upper Pliocene and Post Pliocene Deposits in the area between the Volga and the Ural Rivers, and its stratigraphic significance.

Card 2/3

SPIRINA, V.V.

Stratigraphy of the Tartarian stage of the southern part of Obshchiy Syrt and the Ural Mountain portion of Orenburg Province based on Ostracoda. Uch.zap. SGU 74:87-89 '60. (MIRA 15:7)
(Ural Mountain region--Ostracoda, Fossil)
(Ural Mountain region--Geology, Stratigraphic)

MESHCHERYAKOV, A.F., inzh.; PROVODIN, S.S., inzh.,; KALINOVSKAYA, Ye.Ya., inzh.; SHOLOKHOV, A.N., inzh.; DUMESH, S.Ye., inzh.; SPIRINA, Ye.I., inzh.; ZATONSKAYA, M.I., inzh.; ZARILOVA, T.A., tekhnik; LITINA, L.A., tekhnik; SHERDYUKOV, Ya.I., otv. red.

[Index to an illustrated map of Moscow] Moskva; ukazatel' k il-liustrirovannoi skheme. Moskva, 1957. 47 p. (MIRA 14:9)

1. Mosgorgeotrest, Moscow.
(Moscow--Maps--Indexes)

SPIRINA, Ye.Ya.; VIL'YAMSON, V.I.

Extend the use of arsenic preparations in the protection of grain crops. Zashch.rast.ot vred.i bol. 7 no.5:25-26 My '62. (MIRA 15:11)

1. Glavnyy agronom po zashchite rasteniy Stavropol'skogo upravleniya proizvodstva i zagotovok sel'skokhozyaystvennykh produktov (for Spirina). 2. Nachal'nik otryada po bor'be s verditelyami rasteniy Stavropol'skogo upravleniya proizvodstva i zagotovok sel'skokhozyaystvennykh produktov (for Vil'yamson).
(Stavropol Territory--Plants, Protection of) (Arsenic compounds)

33498
S/195/61/002/005/026/027
E194/E412

5.4300

AUTHOR: Spiring, Yu.L.

TITLE: The energy of activation of radical reactions

PERIODICAL: Kinetika i kataliz, v.2, no.5, 1961, 801-802

TEXT: To determine the influence of the structure of chemical compounds on their reactivity in radical reactions, one may use a qualitative comparison of relationships obtained during quantum-mechanical consideration of the problem of interaction of three atoms a-b-c, with experimental data on the energy of activation. For this purpose the system energy is presented as follows:

$$E = Q + \left(\frac{ab+bc}{2} - ac\right)\left[1 + \frac{3}{4}\frac{(ab-bc)^2}{\left(\frac{ab+bc}{2} - ac\right)^2}\right]^{1/2} \simeq$$

$$\simeq Q + \left(\frac{ab+bc}{2} - ac\right)\left[1 + \frac{3}{8}\left(\frac{ab-bc}{\frac{ab+bc}{2} - ac}\right)^2\right], \quad (1)$$

Card 1/5

The energy of activation ...

where ab, bc, ac are volume integrals in the system a-b-c; Q is the Coulomb integral. The energy of activation E_o of the reaction a + bc = ab + c is governed by the value of $E_o = E + D_{bc}$ at the point for which the extremal conditions are valid

$$\frac{dE}{dr_{ab,\,bc,\,ac}} = 0 \text{ и } \frac{dE}{dr_{ab}} = \frac{dE}{dr_{bc}}, \qquad (2)$$

where D_{bc} is the bond energy bc; $r_{ab,bc,ac}$ are interatomic distances. The values ab, bc and ac may be replaced by Morze potentials and Coulomb integrals ($Q = Q_{ab} + Q_{bc} + Q_{ac}$) and determined as the energy of van der Waal's interaction, for instance

$$Q_{ab} = -\frac{3}{r}\frac{P_a P_b}{r_{ab}^6} \cdot \frac{J_a J_b}{J_a + J_b} + \frac{k}{r_{ab}^{12}},$$

where P is the bond polarizability of the atom; J the ionization potential; k a constant. Neglecting small terms, Eq.(1) may be written in the following form

Card 2/5

The energy of activation ...

$$E = 2D_{ac}e^{-\beta_{ac}x_{ac}} + \frac{D_{ab}}{2}(1-e^{-\beta_{ab}x_{ab}})^2 +$$

$$+ \frac{D_{bc}}{2}(1-e^{\beta_{bc}x_{bc}})^2 + \frac{Q_{ab}+Q_{bc}}{2} - \Delta H\left(\frac{1}{2} - \frac{3}{4}\frac{\Delta H}{D_{bc}+D_{ab}}\right), \quad (3)$$

where $x = r - r_0$; $\Delta H = D_{ab} - D_{bc}$; $\frac{ab-bc}{\frac{ab+bc}{2}-ac} \simeq \frac{2\Delta H}{D_{ab}+D_{bc}}$; β - constant.

Eq.(3) together with conditions (2) and the equation $r_{ac} = r_{ab} + r_{bc}$ should determine the value of the energy of activation and its change in a number of reactions as function of the characteristics of the initial and final products. However, it is very inconvenient to use this equation and some simplification is necessary. It will easily be seen that for reactions in which the value of the van der Waal interaction may be neglected or assumed constant (atoms of low polarizability) there should be a relationship of the type

$$E_0 \sim \alpha D_{ac}e^{-\beta_{ac}x_{ac}} - K\Delta H,$$

$$\alpha \simeq \left[2 + \frac{D_{ac}}{2}\beta_{ac}^2 e^{-\beta_{ac}x_{ac}}\left(\frac{1}{D_{ab}\beta_{ab}^2} + \frac{1}{D_{bc}\beta_{bc}^2}\right)\right],$$

Card 3/5

The energy of activation ...

leading for a number of exchange reactions of a given atom with changes in the opposite sense of D_{ac} and ΔH to Polyani's rule. Here, the coefficient

$$K = \left(\frac{1}{2} - \frac{3}{4} \frac{\Delta H}{D_{ab} + D_{bc}} \right)$$

is close to that in Polyani's rule. In reactions involving easily polarized atoms deviation should be observed from the linear relationship between E_o and ΔH. This explains the anomalous behaviour of atoms of Cl, Br and others in radical reactions (4). The following expression was derived for exothermal reactions

$$E_o = 0.066 \, (0.75 \, D_{ac} - \Delta H) \left(\frac{1}{P_a} + \frac{1}{P_c} \right)$$

which expresses relationship (3) qualitatively and gives better agreement with experiment than Polyani's rule. The author thanks V.I.Osherov for considering this work. There are 4 references: 1 Soviet-bloc, 1 Russian translation from non-Soviet-bloc publication and 2 non-Soviet-bloc. The two references to English

Card 4/5

SPIRIT, J.; PECH, R.

Long-term creep tests of steel. p. 289. (Strojirenstvi, Vol. 7, No. 4, Apr 1957, Praha, Czechoslovakia)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, No. 8, Aug 1957. Uncl.

L 1336-66 EWT(m)/EWA(d)/EWP(t)/EWP(k)/EWP(z)/EWP(b)/EWA(c) JD/HW

ACCESSION NR: AP5022054 CZ/0034/65/000/009/0678/0678

AUTHOR: Spalovsky, F. (Engineer); Spirit, J. (Engineer)

TITLE: Method of cold forming steel, especially stainless-steel sheet and wire parts

SOURCE: Hutnicke listy, no. 9, 1965, 678

TOPIC TAGS: steel, stainless steel, steel sheet, steel wire, lubricant, organic lubricant, sheet forming, cold forming, wire forming, cold forming lubricant

ABSTRACT: This Czech patent introduces a lubricant for use in cold forming of steel sheet and wire parts. The lubricant forms a viscous, elastic, protective film which adheres tightly to metal, increases the service life of the forming tools, makes it possible to obtain parts with a perfectly smooth surface, and improves working conditions. It is made of a water emulsion of polyvinyl acetate and 1—15% of a softener such as dibutyl phthalate, dioctyl adipate, or a mixture of both, and contains no harmful organic solvents. [WW]

ASSOCIATION: none

Card 1/2

L 1336-66

ACCESSION NR: AP5022054 0

SUBMITTED: 14Dec64 ENCL: 00 SUB CODE: FP, MM

NO REF SOV: 000 OTHER: 000 ATD PRESS: 4092

Card 2/2 dg

THANHABAUER, Vladimir, inz.; SPIRIT, Jiri, inz.

We shall take a lesson from the new organization of scientific and technical information in the Soviet Union. Podnik organizace 16 no.12:554-557 D '62.

D

COUNTRY : Bulgaria
CATEGORY :

ABS. JOUR. : RZKhim., No. 1959, No. 85933

AUTHOR : Spiriyev, B.
INST. :
TITLE : Mineral Springs near the Villages of Banya and Byta in the Panagyursk District

ORIG. PUB. : Khidrol. i meteorologiya, 1959, No 2, 47-53

ABSTRACT : Analyses are given of the ionic composition of waters of the springs under study. They are all of the sulfate - chloride-sodium type. -- V. Konshin.

CARD:

SPIRKIN, I., gornyy master; KAVALEROV, P., brigadir navalootboyshchikov,

Collective labor is our strength. Mast.uglia 5 no.1:9-11 Ja '56. (MLRA 9:5)

(Chelyabinsk Basin--Coal mines and mining)

SPIRKIN, I.; KORBOV, M.

Rights and duties of efficiency experts. Sots. trud 6 no.4: 96-98 Ap '61. (MIRA 16:7)

1. Nachal'nik otdela truda i zarabotnoy platy Lyuberetskogo zavoda sel'skokhozyaystvennogo mashinostroyeniya im. Ukhtomskogo (for Korbov).

(Production standards)

SPIRKIN, V.

Visiting instigators of new forms of management. Mashinostroitel' no.4:34-35 Ap '63. (MIRA 16:5)
(Lvov Province--Industrial management)

L 8076-66 EWT(m)/EPF(c)/T/EWP(t)/EWP(b) IJP(c) JD/WE

ACC NR: AP5026461 SOURCE CODE: UR/0204/65/005/005/0741/0746

AUTHOR: Chertkov, Ya. V.; Spirkin, V. G.; Demishev, V. N.

ORG: Moscow Institute for the Petrochemical and Gas Industry im. I. M. Gubkina (Moskovskiy institut neftekhimicheskoy i gazovoy promyshlennosti)

TITLE: Use of sulfuric acid for extracting organic sulfur compounds from petroleum fractions

SOURCE: Neftekhimiya, v. 5, no. 5, 1965, 741-746

TOPIC TAGS: petroleum, petroleum refining, petroleum product, organic sulfur compound, solvent extraction

ABSTRACT: Optimum laboratory conditions were worked out for the selective extraction of sulfur compound from Arlansk petroleum fractions boiling in the 150-325 C range and containing 1.57 wt.% of sulfur. About 70% of the sulfur compounds were recovered without significantly changing their composition by extracting with aqueous sulfuric acid solutions. A two-stage treatment of the crude with 86% aqueous sulfuric acid at room temperature, atmospheric pressure, and extractant: crude ratio= 1:5 removed half of the initial sulfur compounds. Additional sulfur compounds were extracted with 91% aqueous sulfuric acid, extractant:crude =1:5.

Card 1/2 UDC:665.547.93;546.226-325;542.61

L 8076-66

ACC NR: AP5026461

0

The sulfur compounds and resins were almost completely removed from the extract by dilution, the resins were precipitated and the decanted solution was treated for two hours with fuller's earth. The sulfuric acid was regenerated. The isolated sulfur compounds, containing over 14 wt.% sulfur consisted almost entirely of sulfides. They can be readily vacuum or steam distilled; the distillates are colorless or yellowish transparent liquids. Orig. art. has: 2 tables, 2 figures and 1 equation

SUB CODE:OC,GC/ SUBM DATE: 10Nov64/ ORIG REF: 017/ OTH REF: 006

Card 2/2 GW

L 22697-66 EWT(m)/T DJ/WE

ACC NR: AP6007938 SOURCE CODE: UR/0318/66/000/001/0012/0014

AUTHOR: Chertkov, Ya. B.; Spirkin, V. G.; Demishev, V. N.

ORG: MINKhiGP

TITLE: High grade [jet] fuel fractions from Arlan crude oil

SOURCE: Neftepererabotka i neftekhimiya, no. 1, 1966, 12-14

TOPIC TAGS: jet fuel, desulfurization, solvent extraction/TS-1 jet fuel, T-1 jet fuel, Arlan crude oil

ABSTRACT: Solvent extraction with 86 and 91% aqueous sulfuric acid solutions in 1/5 solvent/feed ratio at 15—20C and atmospheric pressure has been used to produce jet fuel components from the 150—325C sour crude-oil fraction from Arlan fields. It is noted that because Arlan crudes are sour, straight-run fuel fractions from such crudes do not meet GOST specifications as to sulfur level. The 150—325C fraction contained 1.57% total sulfur (traces, 0.0004%, of mercaptan sulfur) and 7.9% of silica-gel-absorbable resins. The idea of the solvent extraction method was to remove sulfur compounds—new raw materials for petrochemical usage—without decomposing them, while preserving the composition of the hydrocarbon portion. Sulfide concentrates containing 9.3—13.4% total sulfur were produced. After removal of sulfides the solvent was fully regenerated. From the desulfurized raffinate, straight atmospheric distillation followed by alkaline and water washes produced fractions which exceeded most require-

UDC: 665.63—4.(470.52)

Card 1/2

L 22697-66

ACC NR: AP6007938

ments of GOST 10227-62 specifications for TS-1 and T-1 fuels. Their viscosity characteristic was very favorable, which should ensure satisfactory atomization and good flow and antiwear properties. Anticarbon-forming and combustion properties were also expected to be good. Only the freezing point was unsatisfactory (minus 50C for the 150—260C fraction and minus 40C for the 150—280C fraction) so that the distillates are not suitable as commercial fuels but only as components of such. Their availability, however, increases potential reserves of motor and jet fuels in the USSR. Orig. art. has: 1 table. [SM]

SUB CODE: 21/ SUBM DATE: none/ ORIG REF: 006/ OTH REF: 004/ ATD PRESS: 4216

Card 2/2

L 45687-66 ENT(m)/ENP(j)/T WE/RM

ACC NR: AP6023962 (A) SOURCE CODE: UR/0204/66/006/002/0309/0311

AUTHOR: Chertkov, Ya. B.; Spirkin, V. G.; Demishev, V. N.

ORG: Moscow Institute of Petrochemical and Gas Industry im. Gubkin (Moskovskiy institut neftekhimicheskoy i gazovoy promyshlennosti)

TITLE: Characteristics of stable sulfur compounds of middle fractions of Arlan petroleum

SOURCE: Neftekhimiya, v. 6, no. 2, 1966, 309-311

TOPIC TAGS: organic sulfur compound, aromatic hydrocarbon, petroleum product

ABSTRACT: It had been shown earlier that when thiophene, its homologs, and benzothiophene derivatives, all belonging to the group of "residual" or "undeterminable" sulfur compounds (as opposed to mercaptans, sulfides, and disulfides), are introduced into jet fuels, the properties of the latter are not lowered. In the present study, sulfides were completely removed from the 150-325° fraction of high-sulfur Arlan petroleum by selective extraction with 86-91% sulfuric acid, and the sulfur content of the fraction thus dropped from 1.57 to 0.5 wt. %. After the removal of sulfides, the fraction displayed a high thermal-oxidative stability. The residual sulfur compounds present in the fraction were then extracted with 92 and 93% sulfuric acid. These compounds, containing about 30% of the total sulfur originally present in the fraction, had no negative effect on the thermal stability or corrosion activity of hydrocarbon

Card 1/2 UDC: 665.547.93(470.52)

SPIRKINA, G.V.

S/277/63/000/004/003/013
A004/A127

AUTHORS: Gol'dshteyn, Ya.Ye., Spirkina, G.V.

TITLE: Steels 15XHГ2BA (15KhNG2VA) and 15 X2 Г2CBA (15Kh2G2SVA) as replacements for 18 X2 H 4 BA (18Kh2N4VA) steel for fuel apparatus components

PERIODICAL: Referativnyy zhurnal, Otdel'nyy vypusk. 48. Mashinostroitel'nyye materialy, konstruktsii i raschet detaley mashin, no. 4, 1963, 12, abstract 4.48.78. (Traktory i sel'khozmashiny, 1962, no. 6, 39 - 42)

TEXT: The authors present the chemical compositions, physico-mechanical properties and heat-treatment conditions of the steel grades 15KhNG2VA and 15Kh2G2SVA which are characterized by a lower Ni-content. These steel grades are recommended for the manufacture of precision componehts of fuel apparatus.

[Abstracter's note: Complete translation.]

Chelyabinsk NIIM

Card 1/1

SERGEYEVA, Z.I.; SHTERN, I.Ya.; KUZ'MINA, N.L.; EUVINA, S.M.,
Prinimali uchastiye: SPIRKINA, V.I.; SAMSONOV, V.D.; GULINKINA, I.R.

Dyeing of elastic foam polyurethan and the application of a printed pattern to it. Plast.massy no.2:25-27 '62. (MIRA 15:2)
(Plastics) (Polyurethan)

3. 1

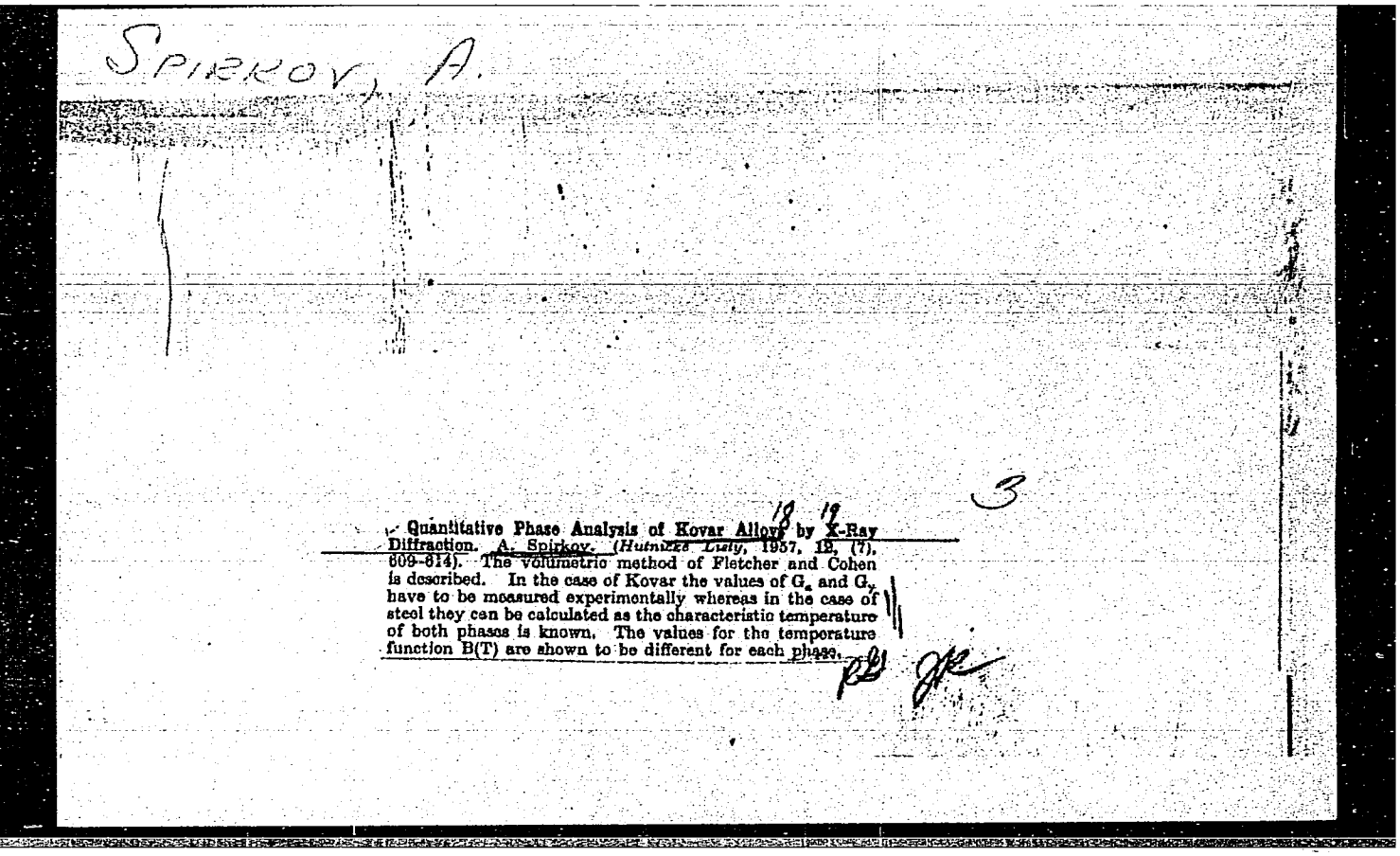
CZECHOSLOVAKIA

KSANDR, Z; SAMEK, Z; SPIRKO, V; FERLES, M

1. Department of Analytical Chemistry - (for ?). 2: Department of Organic Chemistry - (for ?), Institute of Chemical Technology. 3: Institute of Organic Chemistry and Biochemistry, - (for ?). Czechoslovak Academy of Sciences, Prague

Prague, Collection of Czechoslovak Chemical Communications, No 7, July 1966, pp 3003-3007

"Studies in the pyridine series. Part 13: NMR-shift ranges for some isomeric alkylsubstituted tetrahydropyridines."



Spirkov, A.

18 19 3

Quantitative Phase Analysis of Kovar Alloys by X-Ray Diffraction. A. Spirkov. (*Hutnicke Listy*, 1957, 12, (7), 609-614). The volumetric method of Fletcher and Cohen is described. In the case of Kovar the values of G_α and G_γ have to be measured experimentally whereas in the case of steel they can be calculated as the characteristic temperature of both phases is known. The values for the temperature function B(T) are shown to be different for each phase.

CZECH/34-59-4-8/18

AUTHOR: Spirkov, A., Ing.

TITLE: X-ray Diffraction Studies of Cold-rolled Kovar Alloys (Rentgenografická studie plasticky tvářených kovarových slitin)

PERIODICAL: Hutnické Listy, 1959, Nr 4, pp 316 - 319 (Czechoslovakia)

ABSTRACT: The work described in this paper is a continuation of earlier published work (Hutnické Listy, 1957, Vol 12, Nr 7, p 609) and deals with the application of quantitative determination of the α and γ phases for the purpose of investigating Kovar alloys after gradual cold-working. Systematic investigation of these cold-worked alloys enabled elucidating the mechanism of lattice distortion and also finding a simple criterion for evaluating the stability of Kovar alloys. Five basic types of Kovar have been investigated, namely, 1 German, 1 Austrian and 3 Czechoslovakian and, for all these, a quantitative phase analysis was available from earlier work (Ref 2). The spectrum lines for two Kovar alloys are given after degrees of reduction of 0, 25, 50 and 75%.

Cardl/3

X-ray Diffraction Studies of Cold-rolled Kovar Alloys

In Figure 5, the dependence of the disturbance factor on the reduction in % is graphed for several of the tested Kovar alloys. On the basis of the experimental results, the following conclusions are arrived at: the decrease of the distortion factor of the α-phase can be explained by the fact that only a part of the deformation energy is consumed for the formation of lattice distortions whilst the remaining part of the energy is consumed for further α-phase formation. Fluctuations of the distortion factors B_α and B_γ can be explained, according to Wood, by the principle of existence of an upper and a lower boundary of the size of crystals of a given phase. The α-phase content of Kovar sheet increases gradually with increasing reduction. A simplified criterion of the stability of a Kovar alloy is its α-phase content for a given reduction and a Kovar alloy will be the more stable the lower the increase in the α-phase for a given degree of reduction.

CZECH/34-59-4-8/18

X-ray Diffraction Studies of Cold-rolled Kovar Alloys

There are 5 figures, 1 table and 7 references, 5 of which are Czechoslovakian, 1 English and 1 Soviet.

ASSOCIATION: Výzkumný ústav pro vakuovou elektrotechniku, Praha (Research Institute for Vacuum Techniques in Electrical Engineering, Prague)

SUBMITTED: July 7, 1958

Card 3/3

Z/034/60/000/09/003/004
E073/E535

AUTHOR: Spirkov, Alexander, Engineer

TITLE: X-ray Evaluation of Molybdenum Strip Used in Vacuum Electrical Engineering

PERIODICAL: Hutnické listy, 1960, No.9, pp.699-705

ABSTRACT: The task of the author was to determine the optimum annealing temperature for various Czech produced grades of molybdenum from the point of view of preventing crack formation during shaping. It was found by experiment (Fig.3) and also by information published in literature (Ref.3) that the texture of molybdenum remains unchanged for annealing temperatures up to 1500°C; only the size of the crystals increases (recrystallization in situ and local reorientation). Under certain conditions the texture will not change with the degree of annealing and, therefore, the anisotropy in the ductility cannot be eliminated but the magnitude of the internal stresses can be reduced, to prevent premature cracking. For determining the recrystallization temperature, the author used seven heats of Czech origin produced by the firm Safina, which were subjected to step-wise annealing at the

Card 1/3

Z/034/60/000/09/003/004
E073/E535

X-ray Evaluation of Molybdenum Strip Used in Vacuum Electrical Engineering

temperatures 800, 900, 1000, 1100, 1200, 1300, 1400 and 1500°C. For all the melts, reflected diffraction patterns produced by means of cobalt radiation were photographed and the recrystallization temperatures were determined (Table 1), whereby the average recrystallization temperature was 1100°C. The authors also measured the dependence of the width of the X-ray diffraction lines on the number of (deep) draw passes. The results varied considerably for the various types of molybdenum. In addition to Czech produced molybdenum, one grade of Soviet produced molybdenum and one grade of molybdenum produced by the West German firm Metallwerk Plansee were tested. The results are entered in the graphs, Figs. 10 and 11. During the entire process of shaping the texture did not change, even after cracking or tearing. The results have shown that for investigating the behaviour of the material it is preferable to use mechanical tests. The results of X-ray tests are less conclusive and the same applies to

Card 2/3

VC

VENCOVSKY, V., inz.; SPIRKOVA, I.

Using automatic computers in transportation control of building materials. Stav vyzkum no.3:26-32 Je '62.

1. Vyzkumny ustav stavebni vyroby, Praha (for Vencovsky). 2. Pozemni stavby, Plzen (for Spirkova).

KOMSHILOV, N.F.; SPIRKOVA, L.I.

Determining the weight of resinous stump wood. Der.i lesokhim.prom. 2 no.12:13-15 D '53. (MIRA 6:11)

1. Laboratoriya lesokhimii Karelo-Finskogo filiala Akademii nauk SSSR. (Wood)

SPIRKOVA, L. I.

The composition of oleoresin extracted from old pine stumps. N. F. Komshilov, M. N. Letonmyaki, and L. I. Spirkova. *Derevopererabatyvayushchaya i Lesokhim. Prom.* 3, No. 4, 11–12(1954).—The resin content of pine stumps, over 30 years in the ground, were studied. The samples contained (values for both samples given in all cases) 79.9–84.7% bone-dry and resin-free wood, 12.2–7.1% rosin (I), and 8.5–7.7% H_2O. The extd. I was 48.2–49.3% petr. ether insol. and 28.6–27.6% Et_2O insol. The I was divided into 3 groups: (A) sapond. with 5% Na_2CO_3 (64.6–69.1%) (B) with 5% NaOH in H_2O (18.6–15.7%), and (C) with 5% NaOH in EtOH (16.8–15.3%), and each group was divided into neutral substances (II), fatty acids (III), and resin acids (IV). III and IV in A was 4.88–8.55 and 59.7–60.5%; and in B was 2.2–2.7 and 16.3–13.0%. II, III, and IV in C was 9.72–7.43, 2.56–2.99, and 4.56–4.84%. Comparable values for A (80.7%), B (6.4%), and C (12.9%) from a standard rosin were 9.85 and 70.81% III and IV in A and 1.19 and 5.17 in B, and 8.52% II; 2.81% III, and 1.7% IV in C. John Lake Keays

Lab. Wood Chemistry, Karelo-Finn Affil. AS USSR

USSR/Chemical Technology. Chemical Products and Their Application -- Wood chemistry products. Cellulose and its manufacture. Paper, I-23

Abst Journal: Referat Zhur - Khimiya, No 2, 1957, 6248

Author: Komshilov, N. F., Pervozvanskiy, I. V., Pilipchuk, O. I., Spirkova, L. I.

Institution: Karelo-Finnish Filiate of the Academy of Sciences USSR

Title: Raw Material Base of Rosin and Extractive Industry of the Karelo-Finnish SSR

Original Publication: Tr. Kar.-Fin. fil. AN SSSR, 1956, No 3, 67-80

Abstract: Data are provided concerning supplies of stump lightwood. Average pitch content of lightwood from Medvezh'yegorskiy forestry is 17% (on the basis of wood containing 20% moisture).

Card 1/1

Sr[illegible], P., prof.

Achievements and prospects of Bulgaria's industrialization. Przegl techn 86 no.3:8 17 Ja '65.

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L 45425-66 NONE

ACC NR: AT6029407 SOURCE CODE: CZ/2503/66/000/012/0149/0167

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AUTHOR: Spiro, Kornel

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TITLE: A logical model of differentiation and generalization in learning

SOURCE: Ceskoslovenska akademie ved. Vyzkumny ustav matematickych stroju. Stroje na zpracovani informaci, no. 12, 1966, 149-167

TOPIC TAGS: algorithm, elementary stimulus, elementary reaction, pedagogy

ABSTRACT: The author describes a possible logical model of the human learning process. Teacher-system B teaches pupil-system A the correct reactions to stimuli. The reactions are composed of a number of elementary reactions. General laws are assumed to exist in the relations between stimuli and reactions. A single reaction to each stimulus is learned. Each stimulus consists of elementary binary stimuli and each reaction consists of elementary binary reactions. The elementary reaction is the logical function of elementary functions.

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